In the Claims:

1. (*Previously presented*) Method of manufacturing a semiconductor device with a semiconductor body comprising

silicon provided with an n-type doped semiconductor region comprising silicon formed by an epitaxial deposition process, wherein

the epitaxial deposition process of the n-type region is performed by positioning the semiconductor body in an epitaxial reactor and

introducing in the reactor a first gas stream comprising a carrier gas and further gas streams comprising a gaseous compound comprising silicon and a gaseous compound comprising an element from the fifth column of the periodic system of elements, while heating the semiconductor body to a growth temperature (Tg) and using an inert gas as the carrier gas, characterized in that for the gaseous compound comprising silicon a mixture is chosen of a first gaseous silicon compound which is free of chlorine and a second gaseous silicon compound comprising chlorine.

2. (*Original*) Method according to claim 1, characterized in that the first gaseous silicon compound silane is chosen and for the second gaseous silicon compound dichlorosilane is chosen.

3. (*Previously presented*) Method according to claim 1, characterized in that for the gaseous compound comprising a V-element, phosphine is chosen.

4. (*Previously presented*) Method according to claim 1,characterized in that for the growth temperature (Tg) a temperature in the range between 500 °C and 600 °C is chosen.

5. (*Previously presented*) Method according to claim 1, characterized in that the epitaxial deposition process is performed at reduced pressure (P).

6. (*Original*) Method according to claim 5, characterized in that a pressure (P) is chosen between 120 and 160 Torr.

7. (*Previously presented*) Method according to claim 1, characterized in that for the semiconductor device a MOSFET device is chosen and the semiconductor region is formed as a source or drain of the MOSFET device.

8. (*Previously presented*) Method of manufacturing a semiconductor device with a semiconductor body comprising

silicon provided with an n-type doped semiconductor region comprising silicon formed by an epitaxial deposition process, wherein

the epitaxial deposition process of the n-type region is performed by positioning the semiconductor body in an epitaxial reactor and

introducing in the reactor a first gas stream comprising a carrier gas and further gas streams comprising a gaseous compound comprising silicon and a gaseous compound comprising an element from the fifth column of the periodic system of elements, while heating the semiconductor body to a growth temperature and using an inert gas as the carrier gas, characterized in that for the gaseous compound comprising silicon a mixture is chosen of a first gaseous silicon compound which is free of chlorine and a second gaseous silicon compound comprising chlorine,

characterized in that the after the growth of the n-type semiconductor region comprising silicon the deposition process is continued with the growth of a further semiconductor region comprising a lower n-type doping than the semiconductor region or comprising a p-type doping and in that at least between the growth of the semiconductor region and the growth of the further semiconductor region, the inert carrier gas is replaced by a carrier gas comprising hydrogen.

9. (*Previously presented*) Method according to claim 8, characterized in that after growth of the semiconductor region, the carrier gas of an inert gas is maintained in a first short period of a cycle of three short periods, the carrier gas is replaced by hydrogen during the second short period and the carrier gas is switched back to the inert gas during the third short period in

which the deposition process is continued but without the presence of the gaseous compound of the V-element.

10. (*Original*) Method according to claim 9, characterized in that the cycle of three periods is repeated a number of times.

11. (*Previously presented*) Method according to claim 8, characterized in that during the deposition of the further semiconductor region, the gas stream of the gaseous compound with the V-element is chosen to be zero and replaced by another gas stream comprising a gaseous compound comprising an element of the third column of the periodic system of the elements, resulting in a device comprising a p-type further semiconductor region on top of the n-type semiconductor region.

12. (*Previously presented*) Method according to claim 11, characterized in that for the semiconductor device a pnp bipolar transistor is chosen of which the n-type base region is formed by the n-type semiconductor region and the p-type emitter regions is formed by the further semiconductor region .

13. (*Previously presented*) Method according to claim 1, characterized in that nitrogen is chosen as the inert gas.

14. (*Previously presented*) Method according to claim 1, characterized in that the semiconductor region or the further semiconductor region are formed as a mixed crystal of silicon and germanium by leading a yet another gas stream to the reactor comprising a gaseous compound of germanium.

15. (*Previously presented*) Semiconductor device (10) obtained by the method as recited in claim 1.

16. (*Previously presented*) Apparatus for performing a method according to claim 1, characterized in that the apparatus comprises a deposition reactor and is provided with a first source for a gaseous compound of silicon which is free of chlorine and a second source for a gaseous compound of silicon which comprises chlorine.

17. (*Original*) Apparatus according to claim 16, characterized in that it is provided with a first carrier gas source comprising an inert gas and a second carrier gas source comprising hydrogen and with means to switch the carrier gas from the inert gas to hydrogen during the deposition process.

18. (New) The method of claim 1, further comprising:

after growth of the n-type doped semiconductor region, maintaining the introduction of the first gas stream in the reactor for a first time period of a cycle,

during a second time period of the cycle, replacing the inert carrier gas of the first gas stream with hydrogen gas; and

during a third time period of the cycle, switching the carrier gas of the first gas stream from the hydrogen gas back to the inert gas.

19. (New) The method of claim 18, further comprising:

repeating the three time periods of the cycle at least three times; and

after repeating the cycle at least three times, growing a further semiconductor region on top of the n-type doped semiconductor region.

20. (New) The method of claim 19, further comprising:

maintaining the growth temperature at about 575°C during the growth of the n-type doped semiconductor region and during the first and third time periods of the cycle;

increasing the growth temperature to about 650°C during the second time period of the cycle; and

increasing the growth temperature to about 700°C during the growth of the further semiconductor region.